

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number  
**WO 2005/072187 A3**(51) International Patent Classification: **B29C 43/22**(21) International Application Number:  
PCT/US2005/001569

(22) International Filing Date: 21 January 2005 (21.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/764,013 23 January 2004 (23.01.2004) US(71) Applicant (for all designated States except US): **CENTURY-BOARD USA LLC** [US/US]; 9190 Butterfly Court, Fort Myers, FL 33919 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BROWN, Wade, H.** [US/US]; 9190 Butterfly Court, Fort Myers, FL 33919 (US). **TAYLOR, Zachary** [US/US]; 5530 Vista Cantora, Yorba Linda, CA 92887 (US).(74) Agents: **PRATT, John, S. et al.**; 1100 Peachtree Street, Suite 2800, Atlanta, GA 30309-4530 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

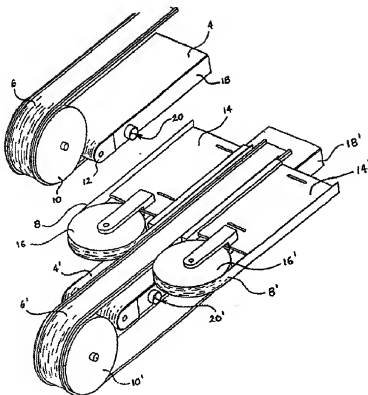
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: CONTINUOUS FORMING SYSTEM UTILIZING UP TO SIX ENDLESS BELTS



(57) Abstract: A system for providing shape and/or surface features to a moldable material includes at least two first opposed flat endless belts (4, 4') spaced apart a first distance, with each having an inner surface and an outer surface. The system also includes at least two second opposed flat endless belts (8, 8') disposed substantially orthogonal to the first two opposed endless belts and spaced apart a second distance. A mold cavity (24) is defined at least in part by the inner surfaces of the at least two opposed flat endless belts. The system further includes a drive mechanism (12, 12') for imparting motion to at least two of the opposed flat endless belts.



(88) Date of publication of the international search report:

16 March 2006

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/01569

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B29C 43/22

US CL : 264/41, 165, 167; 425/107, 329, 371

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 264/41, 46.2, 165, 167; 425/107, 193, 329, 371

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 529,535 A (SMITH) 20 November 1894 (20.11.1894), Figure 1, page 1, lines 50-101.	1,3,4,14,21,23,29,32,34
X	US 3,065,500 A (BERNER) 27 November 1962 (27.11.1962), Figures 1-3, column 2, lines 13-50.	1,3,9,14,17,21,23,27,29,32,34
X	US 3,890,077 A (HOLMAN) 17 June 1975 (17.06.1975), Figures 1, 5 and 7, column 2, lines 35-38, column 3, lines 1-60.	1,3-6,14,16,20,21,23-25,29,30,32,34-36
X	US 4,128,369 A (KEMERER et al.) 05 December 1978 (05.12.1978), Figures 23-24, column 1, lines 24-32, column 12, lines 41-45, column 13, lines 1-3, column 27, lines 1-33.	1-3,10-15,17-23,28,29,32-34,39
X	US 5,340,300 A (SAEKI et al.) 23 August 1994 (23.08.1994), Figures 2-5 and 13, column 4, lines 31-45.	1,3,9,14,16,17,21,23,27,29,32,34
X	US 3,917,774 A (SAGANE et al.) 04 November 1975 (04.11.1975), Figures 1, 2 and 13b, column 4, lines 8-16, column 5, lines 28-45, column 7, lines 6-20 and 55-65.	5,14,16,17,21,23,24,29,32,34,35
Y		2,6-13,15,18,19,22,25-28,30,31,33,36-39

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z"

document member of the same patent family

Date of the actual completion of the international search

29 November 2005 (29.11.2005)

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Date of mailing of the international search report

Authorized officer

James Mackey

Telephone No. 571-272-1700

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US05/01569

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,700,495 A (KEMERER et al.) 23 December 1997 (23.12.1997), Figures 7 and 10, column 18, line 57 through column 20, line 67.	6- 8,10,25,26,28,30,31,3 6,37,39
Y	US 5,458,477 A (KEMERER et al.) 17 October 1995 (17.10.1995), Figure 2, column 11, lines 17-53.	6-8,25,26,30,31,36,37
A	US 6,343,924 A (KLEPSCH) 05 February 2002 (05.02.2002), column 6, lines 31-35, column 7, lines 30-33.	
A	US 2,817,875 A (HARRIS et al.) 31 December 1957 (31.12.1957), Figures 1-7.	